APPENDIX A

AGENDA

AGENDA

Sunday 20 June 2004

5:00 PM Early Registration (5:00-8:00)

Monday 21 June 2004

7:00 AM Registration open

Continental Breakfast

Opening Session

8:30 AM Conference Welcome and Introduction of the Mayor of Alexandria, VA

- Mr. Samuel P. Williamson, Federal Coordinator for Meteorological Services and Supporting Research

8:35 AM Welcome

- Mayor William "Bill" Euille, Alexandria, VA

8:45 AM Conference Objectives and Introductions

- Mr. Samuel P. Williamson, Federal Coordinator for Meteorological Services and Supporting Research

9:00 AM Keynote Address/Invited Speakers

- The Honorable Ted Stevens, United States Senate (invited)
- Dr. James R. Mahoney, Assistant Secretary of Commerce for Oceans and Atmosphere and NOAA Deputy Administrator
- Dr. Charles G. Groat, Director, U.S. Geological Survey
- RADM. James P. Schear, Vice President for Safety, Federal Aviation Administration

10:30 AM Morning Coffee Break (10:30 – 11:00)

- Mr. Ronald J. Birk, Director of the Earth Science Applications Division, Office of Earth Science, NASA
- Mr. Gianni Semenzato, Senior Flight Inspector, Ente Nazional per L'Aviazione Civile (Italian Civil Aviation Authority)

12:00 PM Luncheon (Sponsored by Air Line Pilots Association)

- Guest Speaker: Captain Eric Moody, British Airways (Ret.), *Gliding a B747 Out of Volcanic Ash.*

1:30 PM **Panel 1 – Airborne Volcanic Ash: Perspectives, Challenges, and Opportunities**

Panel Moderator: Dr. Elbert W. (Joe) Friday, WeatherNews Professor of Meteorology and Founding Director of the Sasaki Applied Meteorology Research Institute, University of Oklahoma

Panelists:

- Dr. Thomas P. Miller, Scientist Emeritus, USGS Alaska Volcano Observatory
- Dr. Louis W. Uccellini, Director, NOAA's NWS National Centers for Environmental Prediction
- Ms. Gloria Kulesa, Manager, Aviation Weather Research, FAA
- Mr. Alan Shaffer, Director, Plans and Programs, Office of the Secretary of Defense
- Mr. Peter Chen, Director, Operations Branch, Canadian Meteorological Center, Environment Canada

3:00 PM Afternoon coffee break (3:00-3:30)

3:30 PM **Panel 2: Education, Training, and Outreach**

Panel Moderator: Dr. Gregory S. Forbes, Severe Weather Expert, The Weather Channel

Panelists:

- Ms. Cyndie Abelman, Meteorologist-In-Charge, National Oceanic and Atmospheric Administration/National Weather Service, Oklahoma City, OK
- Captain Albert M. Beerley, US Airways Airbus, US Airways/ALPA Training Committee
- Mr. John O'Brien, Director, Engineering and Air Safety Department, Air Line Pilots Association
- Mr. Saburo Onodera, Manager, Flight Crew Training Department, Japan Airlines
- Professor Eric Doten, Director of Center for Aerospace Safety/Security Education, Embry-Riddle Aeronautical University

5:00 PM **Administrative Remarks**
Erin McNamara, Conference Coordinator for Logistics

Exhibits open
Posters displayed

OFCM Staff Meeting

5:30 PM Icebreaker (Sponsored by Tenix Corporation)

Tuesday 22 June 2004

7:00 AM **Continental Breakfast**

7:55 AM **Administrative Remarks**
Erin McNamara, Conference Coordinator for Logistics

Plenary Sessions

8:00 AM **Session 1: Encounters, Damage, and Socioeconomic Consequences**
Session Chairs: Mr. Edward Miller, Air Line Pilots Association (ALPA)
Mr. Leonard Salinas, United Airlines (UAL)

8:00 AM 1.1 *2003 Caribbean Volcanic Ash Encounters*
Captain Albert M. Beerley, US Airways ALPA Training Committee, Philadelphia, PA, USA

8:20 AM 1.2 *Engine Damage to a NASA DC-8-72 Airplane from a High-Altitude Encounter with a Diffuse Volcanic Ash Cloud*
Thomas J. Grindle, NASA, Edwards, CA, USA; and Frank W. Burcham, Jr.

8:40 AM 1.3 *Aircraft Encounters from the 18th August 2000 Eruption at Miyakejima, Japan*
Andrew Tupper, Bureau of Meteorology, Darwin, Australia; and Yasuhiro Kamada, Noriyuki Todo, Ed Miller

9:00 AM 1.4 *Impacts of Volcanic Ash on Airline Operations*
Leonard J. Salinas, United Airlines Flight Dispatch, Chicago, Illinois, USA; and Daniel Watt

9:20 AM 1.5 *Air Niugini and the Volcanic Ash Threat*
Captain David Innes, Flight Safety Office, Air Nuigini, Papua, New Guinea

9:35 AM 1.6 *Reducing Encounters of Aircraft with Volcanic Ash Clouds*
Marianne Guffanti, USGS, Reston, VA, USA; and Thomas J. Casadevall, Gari Mayberry

9:45 AM *Poster Preview by Session Chair*

Exhibits open (8:00-5:00)
Posters displayed

10:00 AM Morning coffee break (10:00-10:30)

Exhibits staffed (10:00-3:30)

10:30 AM **Session 2: The Volcanic Source - Eruption Monitoring and Reporting**
Session Chairs: Ms. Marianne Guffanti, U.S. Department of the Interior/U. S. Geological Survey (DOI/USGS)
Dr. Steven McNutt, Geophysical Institute, University of Alaska and the International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI)

10:30 AM 2.1 *A Global Perspective on Volcanoes and Eruptions*
Richard Wunderman, Smithsonian Institution, Washington, DC, USA; and Lee Siebert, James Luhr, Tom Simkin, Ed Venzke

10:45 AM 2.2 *Promise and Pitfalls in Eruption Forecasting*
Chris Newhall, USGS, Seattle, WA, USA

11:00 AM 2.3 *Status of Volcano Monitoring Worldwide*
John W. Ewert, USGS, VDAP, Vancouver, WA, USA; and Christopher G. Newhall

11:10 AM 2.4 *Volcanic Alert Systems: An Overview of their Form and Function*
Bradley Scott, Institute of Geological and Nuclear Sciences, Wairakei, New Zealand

11:25 AM 2.5 *Recent Etna's Explosive Eruptions Threaten Seriously Aviation in Central Mediterranean Region*
Mauro Coltelli, INGV, Catania, Italy

11:40 AM 2.6 *Recent Eruptive Activity in Ecuadorian Volcanoes and its Threat to Aviation Safety*
Hugo Yepes A., Instituto Geofisico, Escuela Politecnica Nacional, Quito-ECUADOR

11:55 AM 2.7 *The Alaska Volcano Observatory – Fifteen Years of Working to Mitigate the Risk to Aviation from Volcanic Ash in the North Pacific*
Thomas L. Murray, USGS, AVO, Anchorage, AK, USA

12:05 PM 2.8 *Ground-Based Real Time Monitoring of Eruption Clouds in the Western Pacific*
Kisei Kinoshita, Kagoshima University, Kagoshima, Japan; and Satoshi Tsuchida, Chikara Kanagaki, Andrew C. Tupper, Ernesto G. Corpuz, Eduardo P. Laguerta

12:20 PM *Poster Preview by Session Chair*

12:30 PM Lunch (12:30-1:30; catered)

1:30 PM **Session 3: Ash Cloud Observations, Modeling, and Forecasting**
Session Chairs: Dr. William Rose, Michigan Technological University (MTU)
Ms. Barbara Stunder, U.S. Department of Commerce/National Oceanic and Atmospheric Administration/Office of Oceanic and Atmospheric Research/Air Resources Laboratory (DOC/NOAA/OAR/ARL)
Mr. Andrew Tupper, Bureau of Meteorology, Volcanic Ash Advisory Center (VAAC), Australia

1:30 PM 3.1 *Modeling Volcanic Ash Transport and Dispersion: Expectations and Reality*
Rene Servranckx, CMC, MSC, Quebec, Canada; and Peter Chen

1:46 PM 3.2 *Discrepancies Between Satellite Detection and Forecast Model Results of Ash Cloud Transport: Case Study of the 2001 Eruption of Mt. Cleveland Volcano, Alaska*
David J. Schneider, USGS, AVO, Anchorage, AK, USA; Rene Servranckx, Jeff Osiensky

2:00 PM 3.3 *Assessing Volcanic Ash Hazard by Using the CALPUFF System*
Sara Barsotti, Istituto Nazionale di Geofisica e Volcanologia, Pisa, Italy; and Augusto Neri, Joe Scire

2:12 PM 3.4 *Potential of the ATHAM Model for Use in Air Traffic Safety*
Christiane Textor, Lab. Sciences du Climate et de L'Environnement, Paris, France; and Gerald Ernst

2:24 PM 3.5 *Volcanic Ash and Aerosol Detection Versus Dust Detection Using GOES and MODIS Imagery*
Bernadette Connell, CIRA/CSU, Fort Collins, CO, USA

2:36 PM 3.6 *Ice in Volcanic Clouds: Where and When?*
William I. Rose, Michigan Technological University, Houghton, MI, USA

2:48 PM 3.7 *Detection of Upper Level SO_2 via the GOES Sounder*
Fred Prata, CSIRO Atmospheric Research, Aspendale, Australia; and Anthony J. Schreiner, Gary P. Ellrod, Timothy J. Schmit

3:00 PM 3.8 *The G-bIRD Volcanic Ash Cloud Detection System*
Bill Young, Tenix, Sydney, Australia; and Matthew Simmons

3:12 PM *Poster Preview by Session Chair*

3:15 PM Afternoon coffee break (3:15-3:45)

3:45 PM **Session 4: VAAC Operations and Capabilities**

Session Chairs: Ms. Grace Swanson, U.S. Department of Commerce/National Oceanic and Atmospheric Administration/National Environmental Satellite, Data, and Information Service/Volcanic Ash Advisory Center, Washington, D.C., USA (DOC/NOAA/NESDIS/VAAC)

Mr. Rene Servranckx, Environment Canada, Canadian Meteorological Center, Volcanic Ash Advisory Center, Montreal (EC/CMC/VAAC)

3:45 PM 4.1 *The International Airways Volcano Watch (IAVW)*
Raul Romero, ICAO, Montreal, Canada

3:55 PM 4.2 *WMO Activities Related to Volcanic Ash*
Saad Benarafa, World Meteorological Organization, Geneva, Switzerland

4:00 PM 4.3 *NOAA's NWS Volcanic Ash Program: Current Status and Plans for the Future*
Christopher S. Strager, NWS Alaska Region Headquarters, Anchorage, AK, USA; and Jeffrey M. Osiensky, Gary L. Hufford

4:10 PM 4.4 *Volcanic Ash Impact on International Airport of Mexico City (AICM), Due to Emissions of Popocatepetl Volcano*
Humberto Rodriguez, DMTA of SENEAM, Mexico, D.F. Mexico

4:20 PM 4.5 *The Darwin VAAC Volcanic Ash Workstation*
Rodney Potts, Bureau of Meteorology Research Centre, Melbourne, Australia; and Mey Manickam, Andrew Tupper, Jason Davey

4:30 PM	4.6	*Shared Situational Awareness and Collaboration Through the Use of the Volcanic Ash Collaboration Tool (VACT)* Jeffrey M. Osiensky, NWS Alaska Aviation Weather Unit, Anchorage, AK, USA; and Greg Pratt, David J. Schneider, Lynn Sherretz
4:40 PM	4.7	*Perspectives on Operational Volcanic Ash Warnings* Hordur Thordarson, Meteorological Service of New Zealand, Wellington, New Zealand
4:50 PM	4.8	*Volcanic Cloud Conceptual Models for Volcanic Ash Advisory Centre Operations* Andrew Tupper, Bureau of Meteorology, Darwin, Australia; and Gerald Ernst, Christiane Textor, Kisei Kinoshita, J. Scott Oswalt, Daniel Rosenfeld
5:00 PM	4.9	*Volcanic Ash Advisory Support for the U.S. Department of Defense* Charles Holliday, U.S. AFWA, Offutt AFB, Nebraska, USA
5:05 PM	4.10	*Web Access to the Digital Archive of VAA Messages and VAFTAD Model Output* Paula Dunbar, NOAA/NESDIS/NGDC, Boulder, CO, USA; and Grace Swanson
5:10 PM		*Poster Preview by Session Chair*

5:30 PM Sessions end for the day

OFCM Staff Meeting

7:00 PM Tour Washington VAAC

Wednesday 23 June 2004

7:00 AM **Continental Breakfast**

7:55 AM **Administrative Remarks**
Erin McNamara, Conference Coordinator for Logistics

8:00 AM **Session 5: Aviation Industry Perspectives**
Session Chairs: Mr. Steven R. Albersheim, U.S. Department of Transportation/Federal Aviation Administration (DOT/FAA)
Mr. John Murray, National Aeronautics and Space Administration/Langley Research Center (NASA/LaRC)

8:00 AM 5.1 *Technology Transfer: Moving R&D to Operations*
Steven R. Albersheim, Federal Aviation Administration, Washington, D.C., USA

8:15 AM 5.2 *The Effect of Volcanic Activity on Airports*
Marianne Guffanti, USGS, Reston, VA, USA; and Gari Mayberry, Rick Wunderman, Thomas J. Casadevall

8:30 AM 5.3 *An Air Traffic Controller Perspective on Volcanic Ash: How to Deal with It!*
Richard Hernandez, FAA San Juan Automated International Flight Service Station, San Juan, Puerto Rico, USA

8:50 AM 5.4 *The New Zealand Volcanic Ash Advisory System*
Peter Lechner, Civil Aviation Authority of New Zealand, Wellington, NZ

9:05 AM 5.5 *Prevention of Volcanic Ash Encounters in the Proximity Area Between Active Volcanoes and Heavy Air Traffic Routes*
Saburo Onodera, Flight Crew Training Department, Japan Airlines, Tokyo, Japan

9:20 AM 5.6 *A Program for Research and Systems Integration to Help Mitigate the Volcanic Ash Hazard to Aviation*
Tenny A. Lindholm, National Center for Atmospheric Research (NCAR), Boulder, CO, USA

9:35 AM 5.7 *Explosive Volcanic Eruptions Across the Heavily Traveled North Pacific Air Routes: Frequency, Duration, and Impact on Aviation*
Thomas P. Miller, USGS, AVO, Anchorage, AK, USA

9:55 AM *Poster Preview by Session Chair*

Exhibits open (8:00-5:00)
Posters displayed

10:00 AM Morning coffee break (10:00-10:30)

Exhibits staffed (10:00-3:30)

10:30 AM **Breakout Sessions** (10:30-12:30)

Breakout Session 1: Improving Volcanic Ash Cloud Detection

Session Moderators: Dr. David J. Schneider, U.S. Geological Survey, Alaska Volcano Observatory (USGS/AVO)

Dr. Steven Ackerman, Cooperative Institute for Meteorological and Satellite Services, University of Wisconsin - Madison

Breakout Session 2: Improving Modeling Capabilities

Session Moderators: Mr. Rene Servranckx, Environment Canada, Canadian Meteorological Center, Volcanic Ash Advisory Center, Montreal (EC/CMC/VAAC)

Ms. Barbara Stunder, U.S. Department of Commerce/National Oceanic and Atmospheric Administration/Office of Oceanic and Atmospheric Research/Air Resources Laboratory (DOC/NOAA/OAR/ARL)

Breakout Session 3: Understanding the Socioeconomic Consequences

Session Moderators: Mr. Floyd Hauth, Science and Technology Corporation

Mr. Peter Lechner, Civil Aviation Authority of New Zealand

12:30 PM Lunch (12:30-1:30; catered)

1:30 PM Poster Session (1:30-3:30)

P1.1 *Three Aircraft Encounters over Micronesia*
Andrew Tupper, Bureau of Meteorology, Darwin, Australia; and Jason Davey, Paul Stewart, Barbara Stunder, Rene Servranckx

P1.2 *Sulfurous Odors: A Signal of Entry into an Ash Plume – But Perhaps Less Reliable for Escape*
Richard Wunderman, Smithsonian Institution, Washington, DC, USA

P2.1 *Evaluation of a Prototype Infrasound System for Enhancing Volcanic Ash Warnings*
Henry Bass, University of Mississippi; and Milton Garces, David McCormack, Peter Chen, Michel Jean

P2.2 *Recurrence of Explosive Eruptions at Etna Volcano that Produce Hazard for Aviation*
Paola Del Carlo, INGV, Catania, Italy

P2.3 *A Proposed Alert-level Notification Scheme for Aviation and Ground-based Hazards at U.S. Volcanoes*
C.A. Gardner, USGS, Cascades Volcano Observatory, Vancouver, WA, USA; and M.C. Guffanti, C.C. Heliker, D.P. Hill, J.B. Lowenstern, T.L. Murray

P2.4 *Monitoring and Reporting of Kamchatkan Volcanic Eruptions*
Evgenii Gordeev, Institute of Volcanology and Seismology, Petropavlovsk-Kamchatsky, Russia; and Sergei Senjukov, Olga Girina

P2.5 *Volcano-Related Information Available on the Internet: From Current Activity to the Past 10,000 Years*
Gari Mayberry, USGS, Washington, DC, USA; and Edward Venzke, James Luhr, Richard Wunderman, Lee Siebert, Marianne Guffanti

P2.6 *Volcanic Tremor and its Use in Estimating Eruption Parameters*
Stephen R. McNutt, AVO, Fairbanks, AK, USA

P2.7 *Surprise/Sudden Onset Eruptions: The Case of Reventador Volcano – Ecuador, 03-November, 2002*
Patricia Mothes, Instituto Geofisico, Quito-Ecuador; and Minard L. Hall, Patricia Ramon, Hugo Yepes

P2.8 *Ashfall Scenarios and Aviation Impacts of Future Eruptions of Cotopaxi Volcano – Ecuador*
Patricia Mothes, Instituto Geofisico, Quito-Ecuador; and Minard L. Hall, Pablo Samaniego, Hugo Yepes

P2.9 *Airborne Ash Hazard Mitigation in the North Pacific: A Multi-Agency, International Collaboration*
Christina Neal, USGS, Anchorage, AG, USA; and AVO Staff, Olga Girina, Gail Ferguson, Jeffrey Osiensky

P2.10 *Ground-Based Detection of Volcanic Ash and Suphur Dioxide*
Fred Prata, CSIRO Atmospheric Research, Aspendale, Australia; and Cirilo Bernardo

P2.11 *The New Zealand Volcano Alert Level System – Its Performance in Recent Eruptive Activity*
Bradley Scott, Institute of Geological and Nuclear Sciences, Wairakei, New Zealand

P2.12 *Monitoring of Active Volcanoes of the Kurile Islands: Present and Future*
A.V. Rybin, Institute of Marine Geology and Geophysics, Yuzhno-Sakhalinsk, Russia; and Y.V. Karagusov, P.E. Izbekov, N.S. Terentyev, V.B. Guryanov

P2.13 *Volcanic Eruptions as Thunderstorm Ice Factories*
Earle R. Williams, Parsons Laboratory, MIT, Cambridge, MA, USA; and Stephen R. McNutt

P3.1 *UW-Madison Advanced Satellite Aviation-weather Products MODIS Satellite Volcanic Ash Detection Methodologies*
Steven Ackerman, Wayne F. Feltz, CIMSS/SSEC University of Wisconsin, Madison, WI, USA; and Tim Schmit, John Murray, David Johnson

P3.2 *Removal Processes of Volcanic Ash Particles from the Atmosphere*
Gregg Bluth, Michigan Technological University, Houghton, MI, USA; and Bill Rose, Matt Watson

P3.3 *Sounding of Volcanic Clouds with Balloon-Borne Instruments: Improving Algorithms for Ash and SO_2 in Remote Sensing Imagery*
John Chadwick, Idaho State University, Pocatello, ID, USA; and Zach Lifton, Ken Dean, Jim Chadwick

P3.4 *FALL3D: A Numerical Model for Volcanic Ash Dispersion in the Atmosphere*
A. Costa, Istituto Nazionale de Geofisica e Vulcanologia, Napoli, Italy; and G. Macedonio

P3.5 *Use of Dispersion Models to Track Eruption Clouds*
Ken G. Dean, Geophysical Institute, University of Alaska, Fairbanks, AK, USA; and Rorik A. Peterson, Ken Papp, Jonathan Dehn

P3.6 *Laboratory Measurements of Heterogeneous Ice Nucleation by Volcanic Ash: Importance for Detecting and Modeling Volcanic Clouds*
Adam J. Durant, Michigan Technological University, Houghton, Michigan, USA; and Raymond A. Shaw, Youshi Mi, and William I. Rose

P3.7 *Volcanic Ash Detection and Cloud Top Height Estimation from the GOES-12 Imager: Coping Without a 12μm Infrared Band*
Gary P. Ellrod, NOAA/NESDIS, Camp Springs, MD, USA; and Anthony J. Schreiner, Alonzo M. Brown

P3.8 *Resuspension of Relic Volcanic Ash and Dust from Katmai: Still an Aviation Hazard*
David Hadley, NWS Alaska Aviation Weather Unit, Anchorage, AK, USA; and Gary L. Hufford, James J. Simpson

P3.9 *Observing Popocatepetl's Volcanic Ash Clouds Using MODIS Infrared Data*
M. Alexandra Matiella, Michigan Technological University, Houghton, MI, USA; and Hugo Delgado-Granados, William I. Rose, I. Matthew Watson

P3.10 *Comparison of Ash Detection Techniques Using TOMS, MODIS, AVHRR, and GMS: A Case Study of the August 18 and 28, 2000 Eruption Clouds of Miyakejima, Japan*
Emily McCarthy, Michigan Technological University, Houghton, MI, USA; and Gregg Bluth, Matthew Watson, Andrew Tupper, Yasuhiro Kamada

P3.11 *Predicting Regions Susceptible to High Concentrations of Airborne Volcanic Ash in the North Pacific Region*
Kenneth Papp, Geophysical Institute, University of Alaska, Fairbanks, AK, USA; and Ken Dean, Jonathan Dehn

P3.12 *Reanalysis of Eruption Clouds from the North Pacific Region and Their Impact on Aircraft and Population Centers*
Rorik A. Peterson, Geophysical Institute, University of Alaska, Fairbanks, AK, USA; and Ken G. Dean, Ken Papp, Joanne Groves, Jonathan Dehn

P3.13 *Quantitative Sulphur Dioxide Retrievals from AIRS, MODIS and HIRS*
Fred Prata, CSIRO Atmospheric Research, Aspendale, Australia; and Cirilo Bernardo

P3.14 Sakura – *An Airborne Infrared Imaging Camera for the Detection Of Volcanic Ash and Sulphur Dioxide Gas*
Fred Prata, CSIRO Atmospheric Research, Aspendale, Australia

P3.15 *Testing Real-Time Remote Sensing for Monitoring Volcanic Activity in Central America*
Armando Saballos, INETER, Managua, Nicaragua; and Peter Webley, Martin Wooster

P3.16 *Advances in Ultraviolet Detection of Volcanic Eruption Clouds*
Stephen J. Schaefer, Joint Center for Earth Systems Technology UMBC, Baltimore, MD, USA; and Arlin J. Krueger, Simon A. Carn

P3.17 *Real-Time Monitoring of the Volcanic Ash Fallout Will Improve Airport Safety*
Simona Scollo, INGV, Catania, Italy; and Mauro Coltelli, Marco Folegani, Stefano Natali, Franco Prodi

P3.18 *Operational MODIS Volcanic Ash Products for Aviation Safety and Natural Hazards Mitigation*
George Stephens, OSDPD, NOAA/NESDIS, Camp Springs, MD, USA; and Gary P. Ellrod, Jun-Sun Im

P3.19 *Volcanic Ash Dispersion Modeling Research at NOAA Air Resources Laboratory*
Barbara Stunder, NOAA/ARL, Silver Spring, MD, USA

P3.20 *Operational Volcanic Ash Plume Prediction Model PUFF at the Japan Airlines*
H.L. Tanaka, Institute of Geoscience, University of Tsukuba and FRSGC, Japan; and Saburo Onodera, Daisuke Nohara

P3.21 *Correcting Ash Retrievals for the Presence of Atmospheric Water Vapor Using Foreward Modeling*
I.M. Watson, Michigan Technological University, Houghton, MI, USA; and W.I. Rose, G.J.S. Bluth

P3.22 *Eruption Cloud Echo Measured with C-band Weather Radar*
Yoshihiro Sawada, Hokkaido University, Sapporo, Japan

P4.1 *Operations of Washington Volcanic Ash Advisory Center (VAAC)*
Gregory M. Gallina, NOAA SSD, Camp Springs, MD, USA; and Davida Streett

P4.2 *Improvement of Ash Cloud Information by Tokyo VAAC*
Takeshi Koizumi, Japan Meteorological Agency, Tokyo, Japan; and Yoshihiko Hasegawa, Yasuhiro Kamada, Masamichi Nakamura

P4.3 *The Montreal VAAC Toolbox: When Every Second Counts*
Mark McCrady, CMC, MSC, Quebec, Canada; and Serge Trudel, Jean-Philippe Gauthier, Rene Servranckx

P4.4 *Eruption of Anatahan Volcano: Operations and Observations*
Michael G. Middlebrooke, NOAA/NWS, Barrigada, Guam

P4.5 *The Volcanic Ash Collaboration Tool (VACT)*
Jeffrey M. Osiensky, NWS Alaska Aviation Weather Unit, Anchorage, AK, USA; and Greg Pratt, David J. Schneider, Lynn Sherretz

P4.6 *Volcanic Ash Monitoring and Forecasting at the London VAAC*
Sarah Watkin, Met Office, Exeter, Devon, U.K.; and Derrick Ryall, Helen Watkin, Helen Champion, Stewart Wortley, Nigel Gait

P4.7 *Web Access to the Digital Archive of VAA Messages and VAFTAD Model Output*
Paula Dunbar, NOAA/NESDIS/NGDC, Boulder, CO, USA; and Grace Swanson

P5.1 *First 8 Hours of Volcanic Eruptions: A Northwest Airlines Example & Recommendation of Revised Flow of Ash Information for Aviation*
Tom Fahey, Northwest Airlines, Minneapolis/St. Paul, MN, USA

3:00 PM Afternoon coffee break (3:00-3:30)

3:30 PM **Breakout Sessions** (3:30-5:30)

Breakout Session 4: Improving Volcanic Eruption Reporting

Session Moderators: Ms. Christina Neal, U.S. Department of the Interior/U.S. Geological Survey/Alaska Volcano Observatory (DOI/USGS/AVO)

Ms. Cynthia Gardner, U.S. Department of the Interior/U.S. Geological Survey/Cascades Volcano Observatory (DOI/USGS/CVO)

Breakout Session 5: Technology Transfer from Research into Operations

Session Moderators: Mr. Mark Andrews, Department of Commerce/National Oceanic and Atmospheric Administration/National Weather Service/Aviation Weather Services (DOC/NOAA/NWS/AWS)

Ms. Debi Bacon, U.S. Department of Transportation/Federal Aviation Administration (DOT/FAA)

Breakout Session 6: Improving VAAC Operational Capabilities

Session Moderators: Mr. Raul Romero, International Civil Aviation Organization, Montreal, Canada (ICAO)

Ms. Grace Swanson, U.S. Department of Commerce/National Oceanic and Atmospheric Administration/National Environmental Satellite, Data, and Information Service/Volcanic Ash Advisory Center, Washington, D.C., USA (DOC/NOAA/NESDIS/VAAC)

Breakout Session 7: Meeting Aviation Needs

Session Moderators: Mr. William Phaneuf, Air Line Pilots Association (ALPA)

Mr. Richard Heuwinkel, Department of Transportation/Federal Aviation Administration

5:30 PM Sessions end for the day

OFCM Staff Meeting

6:30 PM Reception at the Smithsonian National Museum of Natural History (6:30 PM – 8:00 PM)

Thursday 24 June 2004

7:00 AM **Continental Breakfast**

8:00 AM **Regional Breakout Sessions** (8:00-10:00)

Breakout Session 8: North Asia Pacific (e.g., Alaska, Russia, Japan)
Session Moderators: Mr. Christopher Strager, U.S. Department of Commerce/National Oceanic and Atmospheric Administration (DOC/NOAA)
Ms. Terry Keith, U.S. Department of the Interior/U.S. Geological Survey/Alaska Volcano Observatory (DOI/USGS/AVO)

Breakout Session 9: The Americas and the Caribbean (excluding Alaska)
Session Moderators: Dr. Patricia Mothes, Instituto Geofísico de la Escuela Politécnica Nacional, Ecuador
J. Armando Saballos, Instituto Nicaraguense de Estudios Territoriales, Nicaragua
Richard Hernandez, Federal Aviation Administration

Breakout Session 10: Europe, Africa, and the Middle East
Session Moderators: Dr. Gerald Ernst, Department of Geology and Soil Science, University of Ghent, Belgium
Mr. Jean-Philippe Desbios, Volcanic Ash Advisory Center (VAAC), Toulouse, France

Breakout Session 11: South Asia Pacific (e.g., Indonesia, the Philippines, Australia, New Zealand)
Session Moderators: Mr. Rodney Potts, Australian Bureau of Meteorology Research Centre
Capt. David Innes, Air Niugini

10:00 AM Morning coffee break (10:00-10:30)

Closing Session

10:30 AM **ICAO's Commitment to Mitigating Volcanic Ash Hazard**
Mr. William Voss, Director, Air Navigation Bureau, International Civil Aviation Organization

10:45 AM **Conference Highlights**
Ms. Marianne Guffanti, DOI/USGS
Mr. Andrew Tupper, Bureau of Meteorology, Volcanic Ash Advisory Center (VAAC), Australia

11:30 AM **Building on Our Successes in Aviation Safety for the Next Decade**
Dr. Elbert W. (Joe) Friday, University of Oklahoma
Dr. Paul D. Try, Senior Vice President, Science and Technology Corporation

12:30 PM **Closing Remarks/Next Steps**
Mr. Samuel P. Williamson, Federal Coordinator for Meteorological Services and Supporting Research

1:00 PM Adjourn